

REMARKS

The office action of February 5, 2008, has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claim 33 was canceled previously. Claims 1-8, 15 and 22-32, and 34-46 remain in this application.

Rejections Under 35 U.S.C. § 112

Claims 2, 22, and 29 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to define the invention in the manner required. Applicants respectfully traverse this rejection.

Applicants have amended claims 22 and 29, and respectfully submit that the rejection related to the narrative form of the claims has been rendered moot. See the office action at page 3, paragraphs 7-8. With respect to the recitation of the term “experience” in claim 29, Applicants refer to the below remarks with respect to the section 112 rejection of claim 2.

The office action at page 3 (paragraph 6) states that it is unclear what is claimed with respect to claim 2. More specifically, the Examiner asserts that claim 2 recites a mobile terminal in the preamble, but that the claim appears to be claiming a first base station and a second base station, which is separate from the mobile terminal. Applicants note that claim 2 recites, “A mobile terminal configured to receive a first message from a first base station and a second message from a second base station, wherein the mobile terminal experiences soft handoff between said first and second base stations . . .” Applicants note that the additional features recited in claim 2 qualify the nature of the soft handoff. Applicants respectfully submit that claim 2 is definitively directed to a mobile terminal. With respect to the term “experiences” as recited in claim 2, Applicants note that the term is used in connection with the recitation “wherein the mobile terminal *experiences* soft handoff.” Applicants submit that usage of the term “experiences” in conjunction with “soft handoff” can readily be appreciated when reviewing the specification as a whole, and in particular, paragraphs [0004] and [0006]. See U.S. pub. no. 2002/0141360.

In view of the foregoing remarks, Applicants respectfully request withdrawal of the section 112 rejections of claims 2, 22, and 29.

Rejections Under 35 U.S.C. § 103

Claims 1, 2, 15, 22, 29, 30, 40, 43, and 46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent no. 6,108,547 to Yamashita et al. (“Yamashita”) in view of U.S. patent no. 7,239,618 to La Porta et al. (“La Porta”). Applicants respectfully traverse this rejection.

Amended independent claim 1 recites:

“ wherein at least one of said first and second base stations is configured to determine when to initiate said soft handoff.”

Yamashita fails to disclose the above-noted features as recited in claim 1. In fact, Yamashita teaches away from the recited features. More specifically, Yamashita at col. 4, lines 24-41, Figure 1, and Figure 2 (step 1002) describes a process of soft handoff wherein when a mobile station (MS) 18 detects that the quality of a channel between the MS 18 and a serving BTS 12₁ has deteriorated and that the quality with a target BTS 12₂ has improved, *the MS 18 notifies the BTS 12₁ accordingly, upon which a transfer is made to a soft handoff mode.* As such, even assuming (without admitting) that the base transceiver stations (BTSs) described in Yamashita may appropriately be analogized to the first and second base stations recited in claim 1, Yamashita fails to teach or suggest the BTSs initiating soft handoff as required by claim 1. As such, claim 1 is allowable over Yamashita for at least these reasons.

Notwithstanding whether La Porta and Yamashita are properly combinable, La Porta fails to cure the above-noted deficiencies of Yamashita with respect to claim 1. As such, claim 1 is allowable over the applied references for at least the foregoing reasons.

Moreover, independent claim 1 recites:

“ wherein the correspondent host transmits messages to said first base station where said first base station retransmits said messages to said second base station using IP-in-IP encapsulation between said base stations . . . ”

The office action at page 4 correctly indicates that Yamashita is silent with respect to IP-in-IP encapsulation as recited in claim 1. The Examiner in the office action at pages 4-5 asserts that La Porta discloses IP-in-IP encapsulation, and that one of ordinary skill in the art would

have been motivated to implement multiple base stations communicating via a communication line wherein the communication line is an IP-in-IP communication line as disclosed in La Porta for the purpose of carrying out soft handoff in a mobile environment. Applicants respectfully disagree with these assertions for at least the following reasons.

Yamashita at col. 5, lines 37-58 describes a schematic diagram as shown in Figure 3, wherein connections are formed in BTSs 12₁ and 12₂ during a soft handoff mode. In the configuration shown, line controller 20₁ can manage timing to transmit/forward a message from BTS 12₁ to BTS 12₂. The configuration, however, is not well-suited to account for unexpected delays in a communication link between BTSs that would be experienced in a practical/real-world communication system. Yamashita at col. 9, lines 10-24 and Figure 18 describes using a local synchronization method to achieve frequency and timing synchronization between adjacent BTSs, but this method merely resolves phase and frequency synchronization of a clock at each of BTS 12₁ and BTS 12₂, and again fails to consider larger system delays and the inherent message timing misalignment that would be experienced as a result of such delays. One of skill in the art would appreciate that the effects of such delays are increasingly pronounced when message length (e.g., the number of bits/bytes per message) and data rates (e.g., the number of bits/bytes transmitted per unit time) increase; such increases are representative of trends in modern communication systems wherein it is desirable to increase message length and data rates in order to reduce signaling overhead and improve bandwidth utilization.

La Porta at col. 24, lines 11-32 and Figure 15 describes a scheme wherein an old base station BS9 is directly wired to a new base station BS10. Accordingly, the scheme disclosed in La Porta suffers from similar deficiencies as in Yamashita. More specifically, the connections in La Porta are susceptible to failure when implemented in a practical/real-world communication system, and thus the La Porta scheme (with or without being combined with Yamashita) is not as reliable as the system of claim 1, wherein the “connections” between the recited first and second base stations are based instead on the recited IP-in-IP encapsulation. Applicants submit that one of skill in the art would appreciate the technical advance of claim 1 over Yamashita and La Porta because claim 1 results in an improvement in system reliability.

Claim 1 is allowable over Yamashita and La Porta for at least these additional reasons.

Moreover, Applicants submit that the combination of Yamashita and La Porta is improper. More specifically, La Porta at col. 31, lines 21-27 characterizes the handoff path setup scheme disclosed therein as targeted to applications wherein wireless devices tune to one base station at a time. Thus, La Porta teaches away from the soft handoff system recited in claim 1. Applicants refer the Office to MPEP § 2141.02 (VI. Prior Art Must Be Considered In Its Entirety, Including Disclosures That Teach Away From The Claims) (providing that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention) (emphasis in original). Accordingly, since La Porta teaches away from the soft handoff system recited in claim 1, the combination of La Porta and Yamashita is improper. Claim 1 is therefore allowable for at least these additional reasons.

Independent claims 2, 15, 22, 29, and 30 recite features similar to those described above in conjunction with claim 1. Claims 2, 15, 22, 29, and 30 are allowable for at least reasons substantially similar to those discussed above with respect to claim 1.

Dependent claims 40, 43, and 46, which each depend from at least one of claims 2, 15, and 30, are allowable for at least the same reasons as their respective base claims.

Claims 3-8, 23-28, 30-32, 34¹-39, 41, 42², 44, and 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamashita, in view of La Porta, and further in view of U.S. patent no. 6,452,920 to Comstock (“Comstock”). This rejection is respectfully traversed.

Notwithstanding whether a combination of Comstock with Yamashita or La Porta is proper, Comstock fails to cure the above-noted deficiencies of Yamashita and La Porta with respect to claim 1. Amended independent claims 3, 23, and 30 recite features similar to those described above with respect to claim 1. As such, claims 3, 23, and 30 are allowable over the

1 The enumeration of claims on page 5 of the office action includes claim 33. Applicants note that claim 33 has been canceled previously, and do not traverse herein any such rejection as applied to claim 33.

2 The enumeration of claims on page 5 rejected based on Yamashita, La Porta and Comstock fails to include claims 5, 32, 39 and 42. The rejection of claims 5, 32, 39 and 42 at pages 7-8 of the office action appears to rely on (only) these references in rejecting the referenced claims. Accordingly, Applicants have included claims 39 and 42 in the enumeration herein.

applied references for at least reasons substantially similar to those discussed above with respect to claim 1.

Claims 4-8, 23-28, 31, 32, 34-39, 41, and 44, which each depend from at least one of independent claims 3, 23, and 30, are allowable for at least the same reasons as their respective base claims.

Moreover, in Applicants Amendment dated November 19, 2007, Applicants at page 11 discussed the lack of indication in La Porta as to the nature of packet delivery via a combination of IP network technology and wireless systems capable of achieving such concurrent tuning as provided for in each of claims 5 and 32. Applicants incorporate those remarks herein by way of reference. The office action, at page 2 (Response to Arguments) and page 8 fails to address Applicants remarks in this respect. Applicants refer the Examiner to MPEP § 707.07(f) (providing that where Applicants traverse any rejection, the examiner should, if he or she repeats the rejection, take note of the Applicants' argument and answer the substance of it). Applicants note that while the combination of applied references may have changed, the Examiner continues to principally rely on La Porta in formulating a rejection, and as such, has not replied to the substance of Applicants' previous remarks. Applicants respectfully request the Examiner to respond to those remarks in the next communication. Applicants submit that claims 5 and 32 are further allowable over the applied references in view of the advantageous features recited therein.

Notwithstanding whether a combination of Comstock with Yamashita or La Porta is proper, Comstock fails to cure the above-noted deficiencies of Yamashita and La Porta with respect to claim 15. Claims 42 and 45 depend from claim 15, and are therefore allowable for at least the same reasons as claim 15.

Claims 41, 44, and 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamashita, in view of La Porta and Comstock, and further in view of "A Quality of Service Measure In Mobile Computing" to Seal et al. ("Seal"). Applicants traverse this rejection.

Notwithstanding whether a combination of Seal and Comstock with Yamashita or La Porta is proper, Seal fails to cure the above-noted deficiencies of Yamashita, La Porta, and

Comstock with respect to claims 3, 15, and 23. Claims 41, 44, and 45 each depend from one of claims 3, 15, and 23. Thus, claims 41, 44, and 45 are allowable over the applied references for at least the same reasons discussed above with respect to claims 3, 15, and 23.

Applicants refer the Examiner to Applicants' Amendment dated November 19, 2007, at page 12, wherein Applicants differentiated between the features recited in claims 41, 44, and 45, and Seal. Applicants incorporate those remarks herein by way of reference. Applicants note that while the combination of applied references has changed, the Examiner continues to rely principally on Seal to allegedly disclose the recited features. Applicants respectfully request the Examiner to provide a response to the substance of Applicants' prior remarks with respect to the deficiencies of Seal, so as to provide Applicants with a more substantive basis for responding. Applicants submit that claims 41, 44, and 45 are further allowable over the applied references for at least the reasons discussed in Applicants' Amendment dated November 19, 2007, at page 12.

If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

All rejections having been addressed, applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicit prompt notification of the same.

Respectfully submitted,
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